

distinct winter plumage, and that in young birds at least, the wing quills are apparently molted in spring!

I need only say that the lower figure of our plate, which represents the adult winter plumage, and which is evidently the condition described by Dr. Sharpe as showing the expansion of the pink, was drawn from a bird secured in Illinois, Sept. 1871, far north of its winter quarters, while another in Mr. Brewster's collection, taken in Oxford Co., Maine, Aug. 20, is actually in the midst of the molt from the brown-winged pink and white 'First Nuptial' plumage to the adult winter plumage here figured.

This clearly illustrates the lack of accuracy with which seasonal plumages are described in our works of reference, and I may say that the Rose-breasted Grosbeak is not alone in this treatment.

The moral seems to be that in the present advanced condition of American ornithology, when we are splitting hairs in the matter of geographical subspecies, it is high time that each plumage that a bird assumes should be properly understood and described, and more attention given to one of the most interesting branches of ornithological science.



NOTES ON SOME OF THE RARER BIRDS OF WEST- ERN PENNSYLVANIA.

BY S. N. RHOADS.

DATA for the following observations was secured during several excursions which I have made in the western half of Pennsylvania since June 1, 1894. In the main these notes were taken during field work in the interests of the Carnegie Museum of Pittsburgh from April to October, 1898. Some of the most valuable records are based on specimens in the Carnegie Museum taken by local collectors. I am also indebted to Mr. J. Link of Mt. Washington, Pittsburgh, for the privilege of an examination of rare specimens in his private collection. Mr. Seth Nelson of Round Island, Clinton Co., Mr. M. Larrabee of

Emporium, Cameron Co., and Mr. D. A. Atkinson of Pittsburgh have also furnished some valuable notes, the data kindly given by Mr. Atkinson being of especial value.

Some of these notes merely confirm records already published for the State in Dr. Warren's 'Birds of Pennsylvania' and Mr. Stone's 'Birds of Eastern Pennsylvania and New Jersey,' but are valuable in tracing the distribution and breeding areas of little known species.

Colymbus holboëlli. HOLBØLL'S GREBE.—"One taken by me in Allegheny Co., March 17, 1895." *Atkinson*.

Podilymbus podiceps. PIED-BILLED GREBE.—One seen above the wing-dam at the head of Six-mile Island, Allegheny River, Pittsburgh, in early August, indicates this bird to be a breeder in Allegheny County.

Larus argentatus smithsonianus. AMERICAN HERRING GULL.—Frequently noted during migrations along the water courses; often following these far up the smaller mountain streams. "Ohio, Allegheny and Monongahela Rivers, Pittsburgh." *Link*. Sinnemahoning Creek, Clinton and Emporium Counties. *Nelson* and *Larrabee*.

Larus delawarensis. RING-BILLED GULL.—The notes above made for *smithsonianus* apply in large measure to this bird.

Larus philadelphia. BONAPARTE'S GULL.—A few seen on the Sinnemahoning. *Larrabee*.

Sterna hirundo. COMMON TERN.—"One taken on the Allegheny River, Oct. 8, 1892." *Atkinson*.

Sterna sp.? TERN.—"In some spring migrations, see three or four." Cameron Co. *Larrabee*.

Anas obscura. BLACK DUCK.—"Rare in Cameron Co." *Larrabee*.

Anas carolinensis. GREEN-WINGED TEAL.—"Much rarer than the Blue-winged Teal." *Larrabee*. "One taken at Homestead, Allegheny Co., Oct. 30, 1894." *Atkinson*.

Aythya americana. REDHEAD.—"Only one taken at Emporium in the last 20 years." *Larrabee*.

Aythya vallisneria. CANVAS-BACK.—"Taken at Tarentum, Nov. 26, 1893." *Atkinson*.

Erismatura rubida. RUDDY DUCK.—"Rare at Emporium." *Larrabee*.

Anser albifrons gambeli. AMERICAN WHITE-FRONTED GOOSE.—"One shot in Allegheny Co., Nov. 28, 1895." *Atkinson*.

Olor sp.? SWAN.—Two seen on the Susquehanna River at Keating in spring of 1896." *Nelson*. "In 1886 one was taken on the West Branch in Clearfield County." *Nelson*.

Botaurus lentiginosus. AMERICAN BITTERN.—"Occasionally in

Allegheny Co." *Link*. A pair noted breeding at Hookstown, Beaver Co. "Taken at Emporium." *Larrabee*.

Botaurus exilis. LEAST BITTERN.—One taken near Pittsburgh several years ago after a great storm. *Link*.

Fulica americana. AMERICAN COOT.—"A few noted at Emporium." *Larrabee*. "Bellevue, Allegheny Co., September 11, 1968." *Atkinson*.

Tringa minutilla. LEAST SANDPIPER.—Occasionally during migrations along the Ohio River and its larger tributaries. *Link*. Two specimens taken May 18 near Pittsburgh in the Carnegie Museum.

Ereunetes pusillus. SEMIPALMATED SANDPIPER.—Now and then taken along the Ohio below Vanport, Beaver Co. *Link*.

Calidris arenaria. SANDERLING.—Davis Island, Pittsburgh, April 21, 1894." *Atkinson*.

Totanus melanoleucus. GREATER YELLOW-LEGS.—Occasionally stopping in the vicinity of Pittsburgh during migrations. One taken on Davis Island in August, 1898, after a cyclone. *Link*. "Rare at Emporium." *Larrabee*.

Totanus flavipes. YELLOW-LEGS.—"Taken on Neville Island, Allegheny Co., Sept. 16, 1896." *Atkinson*.

Totanus solitarius. SOLITARY SANDPIPER.—The late date at which one of these was noted at Beaver coincides with Mr. W. E. C. Todd's statement that they breed in the County.

Charadrius squatarola. BLACK-BELLIED PLOVER.—"Taken on Neville Island, Allegheny Co., Apr. 26, 1894." *Atkinson*.

Meleagris gallopavo. WILD TURKEY.—Practically exterminated in the southwestern part of Pennsylvania. A few linger in Clinton County. A flock of twenty or more were seen near Keating in that County early in November, 1898. "Four were killed near Lock Haven on Queen's Run a few years ago. Near Flemington Wagner saw 27 in one flock." *Nelson*. I came upon a flock of newly hatched young with dam on the summit of Tuscarora Mountain, Fulton Co., in June, 1889.

Colinus virginianus. BOB-WHITE.—"Never saw one at Emporium in 20 years' residence." *Larrabee*. "Exterminated: one seen this spring at Round Island." *Nelson*.

Ectopistes migratorius. PASSENGER PIGEON.—Three western Pennsylvania specimens are in the Carnegie Museum. One from Washington County, shot 18 years ago, and two from Erie County, presented by Mr. Geo. B. Sennett. No recent records of the appearance of this Pigeon were secured. "In 1892 three flocks were seen in Potter County. Twenty years since any were seen at Round Island." *Nelson*. "Seven years since any were seen in this vicinity (Emporium). They nested fourteen years ago in a beechwood tract on the line between Cameron and McKean Counties." *Larrabee*.

Cathartes aura. TURKEY VULTURE.—A rare straggler into western Pennsylvania north of Pittsburgh. I saw one at Beaver in May, 1898. "Never seen in the region of Emporium." *Larrabee*. "Very rare; have seen one near Round Island." *Nelson*.

Aquila chrysaetos. GOLDEN EAGLE.—“Two taken in Cameron County, one in March, 1892, the other in March, 1894.” *Larrabee*.

Pandion haliaëtus carolinensis. AMERICAN OSPREY.—The comparative rarity of this bird during the breeding season in the mountain districts makes the following note worthy of record:—“One nested in the mountains near Round Island somewhere along Cook’s Run.” *Nelson*.

Strix pratincola. AMERICAN BARN OWL.—The scarcity of extensive marshes and bottomlands in western Pennsylvania is probably the cause of the reputed scarcity of this bird in that region. “Very rare, I never saw one in the flesh.” *Link*.

Nyctala tengmalmi richardsoni. RICHARDSON’S OWL.—A specimen of this extremely rare bird is in the Carnegie Museum collection. It was taken by the donor, Mr. D. A. Atkinson, in Allegheny County, March 12, 1896. Mr. Atkinson, mistaking its identity, had labeled it Acadian Owl. There are no previous records of the occurrence of this Owl in Pennsylvania known to me.

Nyctala acadica. SAW-WHET OWL.—Not rare in the mountains. “South Side Cemetery, Pittsburgh.” *Link*.

Nyctea nyctea. SNOWY OWL.—“Several sent to me from Bailly’s Run, Cameron Co., in 1893.” *Larrabee*.

Ceophlœus pileatus. PILEATED WOODPECKER.—Rare, even in the wilder mountain regions, perhaps owing to the almost complete destruction of dense virgin timber. I heard only one near Laughlintown, Westmoreland Co., during a month’s stay. One was noted in Clinton Co. during six weeks camping and tramping on the mountains near Round Island.

Melanerpes carolinus. RED-BELLIED WOODPECKER.—“Rare; only seen in the nut season in Allegheny Co.” *Link*. “Very rare: one taken near Emporium in May, 1894.” *Larrabee*.

Empidonax flaviventris. YELLOW-BELLIED FLYCATCHER.—Two taken at Beaver, May 21, 1898, are in the Carnegie Museum.

Empidonax acadicus. ACADIAN FLYCATCHER.—Only one specimen of this common eastern species was noted. It was seen at Laughlintown in June.

Otocoris alpestris praticola. PRAIRIE HORNED LARK.—I was much surprised to find the Horned Lark breeding in the suburbs of Pittsburgh. A family of six in Schenley Park, were frequently noted, feeding along the Park drives. Mr. Link has also taken young in summer at Riley’s Ford, Allegheny Co. I was informed by a local collector that it also breeds in Beaver and Butler Counties. None were noted in Westmoreland County during my stay. Mr. Atkinson informs me that he found a nest and four young of this species in the oval of the Schenley Park Race Track. The nest is in the Carnegie Museum.

Corvus corax sinuatus. AMERICAN RAVEN.—One seen during stay in Clinton Co., Oct., 1898. Nelson says they invariably appear where offal is left by the deer and bear hunters in winter.

Dolichonyx oryzivorus. BOBOLINK.—To an east Pennsylvanian the frequent instances of the breeding of this bird in the State west of the Alleghenies are both a surprise and a pleasure. They seem to be summer residents in favorable situations in most of the southwestern counties visited by me. In no place could they be called abundant. "They breed in the Potter County meadows." *Larrabee*.

Xanthocephalus xanthocephalus. YELLOW-HEADED BLACKBIRD.—"One taken in a flock of Redwings, Apr. 26, 1895, in Allegheny Co." *Atkinson*.

Pinicola enucleator. PINE GROSBEAK.—I examined winter specimens taken near Emporium in Mr. Larrabee's collection. "Allegheny Co., Jan. 14, 1898." *Atkinson*.

Loxia curvirostra minor. AMERICAN CROSSBILL.—Breeding in the Clinton County mountains. "Allegheny Co., Jan. 14, 1898." *Atkinson*.

Spinus pinus. PINE SISKIN.—Breeding in the mountains of the northwest counties.

Ammodramus sandwichensis savanna. SAVANNA SPARROW.—This species was noted singing along the roadside near Bedford Springs in Bedford County, in June, 1894.

Chondestes grammacus. LARK SPARROW.—An individual, from its actions evidently nesting, was seen on the road from Bedford Springs to Hyndman in Bedford County, in June, 1894. A fine specimen taken at Leetsdale, Allegheny Co., in May, 1898, is in the mounted collection of the Carnegie Museum.

Junco hyemalis. SLATE-COLORED JUNCO.—The following breeding records may be of value:—Laurel Ridge, two miles east of Laughlintown, Cresson and Summit, Cambria and Blair Counties. Round Island, Clinton Co.

Melospiza georgiana. SWAMP SPARROW.—A rarity. Two seen at Beaver in early May.

Piranga rubra. SUMMER TANAGER.—One was seen by Mr. Link in the South Side Cemetery, Pittsburgh, several years ago.

Lanius ludovicianus. LOGGERHEAD SHRIKE.—Two or three Allegheny County specimens are in the Carnegie Museum.

Vireo solitarius. BLUE-HEADED VIREO.—Breeding near Laughlintown, Cresson, Summit and Round Island.

Protonotaria citrea. PROTHONOTARY WARBLER.—"One taken in Allegheny Co., May 17, 1892." *Atkinson*.

Helmitherus vermivorus. WORM-EATING WARBLER.—One seen near Pittsburgh by Mr. Link.

Helminthophila pinus. BLUE-WINGED WARBLER.—I heard the song of one near Beaver in May, but none were seen there. On the foothills of Laurel Ridge, near Laughlintown, two or three pairs were found breeding. "One taken April 23, 1894, in Allegheny Co." *Atkinson*.

Helminthophila chrysoptera. GOLDEN-WINGED WARBLER.—The abundance of this rare eastern species in the breeding season in Allegheny, Beaver, and Westmoreland Counties was noticeable.

Dendroica tigrina. CAPE MAY WARBLER.—Mr. Link has seen seven examples of this species, some of which were taken in the Pittsburgh City limits. I examined two specimens in his collection taken there. "A specimen taken in Allegheny Co., Aug. 28, 1896." *Atkinson*.

Dendroica cærulea. CERULEAN WARBLER.—So far from this being a very rare bird, as in eastern Pennsylvania, it may be said to be numerous in the southwestern part of the State, where it breeds. I found it breeding in the vicinity of Pittsburgh, Beaver, and Ligonier, Westmoreland Co. It does not breed in the mountain districts of that County, however, none being seen at Laughlintown. It is a very loud and persistent songster.

Geothlypis agilis. CONNECTICUT WARBLER.—A male specimen was taken by Mr. Link, June 4, 1894. Another now in the Carnegie Museum was shot at Leetsdale, Allegheny Co., May 24, 1898, a female.

Geothlypis philadelphia. MOURNING WARBLER.—I found this bird breeding near Laughlintown; several pairs being noted on Laurel Ridge.

Geothlypis trichas. MARYLAND YELLOW-THROAT.—The great scarcity of this bird in Allegheny and Beaver Counties was a surprise to me. Only two were noted. A few were found breeding at Laughlintown.

Sylvania mitrata. HOODED WARBLER.—Two seen in May at Beaver. One singing male noted near Laughlintown in June. A specimen was taken at Leetsdale in May, 1898. They appear to be rare.

Anthus pensilvanicus. AMERICAN PIPIT.—The late spring and early August appearances of this bird in Beaver County noted by me suggest that it may be found breeding in the northwestern counties of Pennsylvania.

Thryothorus bewickii. BEWICK'S WREN.—In 1894 I discovered this bird breeding on the top of Tuscarora Mountain, Fulton County. One specimen was taken at Beaver, April 27, 1898. Two were recorded by me near Round Island, May 27, 1896.

Cistothorus stellaris. SHORT-BILLED MARSH WREN.—"One captured in Allegheny Co., May 4, 1894." *Atkinson*.

AN EXAMPLE OF APTOSOCHROMATISM, AS INFLUENCED BY DIET, IN *MEGASCOPS ASIO*.

BY FRANCIS J. BIRTWELL.

IN THE following pages I shall attempt to detail an account of a very remarkable example of color change without moult or feather loss (Aptosochromatism); but unfortunately the results